

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

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USGEN NEW ENGLAND, INC.)	
NEW ENGLAND POWER COMPANY)	Docket No. 97-94
MASSACHUSETTS ELECTRIC COMPANY)	
NANTUCKET ELECTRIC COMPANY)	
_____)	

REBUTTAL TESTIMONY
OF
JOE D. PACE
ON BEHALF OF NEW ENGLAND POWER COMPANY

DECEMBER 17, 1997

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1 **I. Qualifications**

2
3 Q. Please state your name and address.

4
5 A. My name is Joe D. Pace. My business address is 1600 M Street, N.W., Suite 700,
6 Washington, DC 20036.

7
8 Q. What is your occupation?

9
10 A. I am an economist and a managing director of LECG, Inc. (“LECG,” formerly the Law &
11 Economics Consulting Group, Inc.). LECG is a firm providing expert analysis, litigation
12 support and management consulting in economics, accounting, and finance.

13
14 Q. Please summarize your educational and professional background.

15
16 A. I received my bachelors degree from the College of William and Mary in 1966 and my masters
17 and doctoral degrees from the University of Michigan in 1967 and 1970, respectively. I
18 specialized in the areas of industrial organization and public utility economics. While
19 completing the requirements for my doctorate, I taught economics at the University of
20 Michigan and served as an assistant planner with the Washtenaw County Planning
21 Commission in Ann Arbor, Michigan. I joined National Economic Research Associates, Inc.
22 (“NERA”) in February of 1970. I became a vice president of NERA in 1973, a senior vice
23 president in 1979, and executive vice president in May, 1988. As executive vice president,
24 I had overall responsibility for NERA’s electric and gas utility consulting practice. I left
25 NERA and joined the firm of Putnam, Hayes & Bartlett, Inc. (“PHB”) as a managing director
26 in September 1990. In February of 1995, I left PHB and assumed my present position.
27 During my consulting career, I have directed projects involving a broad range of economic

1 issues in the electric utility industry, in other regulated industries, and in unregulated
2 industries as diverse as automobiles, computers, inertial navigation systems and textile
3 machines. My professional background and experience are described more fully in Exhibit
4 ____ (JDP-1).

5
6 Q. Have you previously presented testimony before courts or regulatory commissions?

7
8 A. Yes. In numerous prior cases, I have submitted affidavits or presented testimony before the
9 Federal Energy Regulatory Commission (“FERC”) addressing market power issues in the
10 electric utility industry. This testimony has been presented in a number of different contexts,
11 including applications for market-based pricing in wholesale markets as well as in a
12 restructured industry environment, horizontal mergers between electric utilities, and so-called
13 convergence mergers between electric and gas utilities. I also have testified on other issues
14 involving the electric utility industry before the FERC, as well as before many state regulatory
15 commissions, the United States Senate, and the United States House of Representatives. In
16 addition, I have presented testimony in a number of federal and state court proceedings
17 involving electric utilities, and other regulated and unregulated industries. Exhibit ____ (JDP-
18 1) provides a complete listing of my prior testimony.

19 **II. Purpose of Testimony**
20

21 Q. What is the purpose of your testimony in this proceeding?
22

23 A. I have been asked by New England Power Company (“NEP”) to respond to Mr. Levitan’s
24 analysis of market shares and concentration measures which leads him to the conclusion that
25 the proposed divestiture of NEP’s non-nuclear assets to USGen New England, Inc.
26 (“USGenNE”) will be anticompetitive.
27

1 Q. Please summarize his position.

2
3 A. Mr. Levitan contends that in the post-transaction world, USGenNE and its affiliates will
4 control 22 percent of all generation resources in NEPOOL and that the proposed transaction
5 will result in increasing the Herfindahl-Hirschman Index (“HHI”) by 47 points to a post-
6 transaction level of 1,852. Mr. Levitan interprets this level and change in HHI as indicating
7 potentially important competitive concerns and warranting serious reconsideration of the
8 proposed transaction. (See Levitan testimony, pages 30-33 and Exhibit ____ (RLL-4)).
9

10 Q. Have you previously had occasion to analyze the competitive implications of the proposed
11 transaction between NEP and USGenNE?
12

13 A. Yes. I presented an extensive competitive analysis of the proposed transaction, which I refer
14 to as the USGenNE/NEP transaction, in an affidavit and associated workpapers filed with the
15 FERC on October 1, 1997. On November 4, 1997, I submitted an additional affidavit to the
16 FERC assessing the competitive implications of USGenNE’s proposed transaction with
17 affiliates of the TransCanada Pipeline Company (“TCPL”). As a result of the
18 USGenNE/TCPL transaction, TCPL will obtain the rights to 230 MW from the Ocean State
19 Power project. Applying the standards utilized by the FERC, the Department of Justice
20 (“DOJ”), and the Federal Trade Commission (“FTC”) to assess horizontal mergers, I
21 concluded that the proposed transactions present no competitive problems. Finally, on
22 December 16, 1997, I submitted a supplemental affidavit to the FERC responding, among
23 other things, to one intervenor witness’ contention that the proposed USGenNE/NEP
24 transaction would violate the standards used by FERC, DOJ, and FTC to screen merger
25 applications if new generation project development activity were taken into account in
26 measuring market shares and concentration indices. My supplemental affidavit demonstrated
27 that this was untrue. My understanding is that all three of these affidavits and the associated
28 workpapers have been made part of the record in this proceeding.

1 III. Summary of Conclusions

2
3
4 Q. Please provide a brief summary of your assessment of Mr. Levitan's market share and
5 concentration calculations, and the conclusions he draws from them.
6

7 A. At the outset, it is important to stress that even if Mr. Levitan's calculations were accepted
8 at face value, the proposed USGenNE/NEP transaction would not violate the merger
9 screening guidelines used by the FERC, DOJ, or FTC. With a post-transaction HHI of 1,852,
10 the increase in the HHI would have to exceed 50 points to fall outside of the "safe harbors"
11 utilized by those agencies in evaluating mergers. In any event, Mr. Levitan has made a
12 number of significant errors in his calculations which completely undermine his conclusions.
13 In fact, when these errors are corrected, Mr. Levitan's own calculations show that the
14 proposed USGenNE/NEP and USGenNE/TCPL transactions will reduce the HHI by about
15 50 points. Beyond this, Mr. Levitan's calculations do not take into account the fact that
16 USGenNE will not control the generation resources it is acquiring from NEP to the extent
17 that it must use those resources to supply wholesale standard offer power to NEP at
18 predetermined prices. Indeed, there is a major internal inconsistency in Mr. Levitan's
19 testimony. He argues that the standard offer prices are so low (particularly during the early
20 years) that USGenNE will up end supplying all or most of the wholesale standard offer power
21 required by NEP, while simultaneously arguing that USGenNE will "control" the acquired
22 generation resources and therefore be positioned to exercise market power. He cannot have
23 it both ways. Resources tied up in providing standard offer service at predetermined prices
24 cannot possibly be used to exercise market power.
25

26 Q. In your opinion, what would a correctly done analysis show regarding the effect of the
27 proposed USGenNE/NEP and USGenNE/TCPL transactions on concentration in the

1 NEPOOL electric power markets?

2
3 A. A comprehensive analysis would examine capacity and energy markets under a variety of
4 circumstances and recognize the extent to which various suppliers actually control generation
5 resources (in the sense of potentially being able to withhold those resources from the market
6 and being able to profit if market prices rise). That is the type of analysis I presented in the
7 affidavits filed with the FERC addressing the USGenNE/NEP and USGenNE/TCPL
8 transactions. The results are summarized in Tables JDP-9 through JDP-12 accompanying the
9 November 4th affidavit. For convenience, I have included those tables in Exhibit___ (JDP-3).
10 Tables JDP-9 and JDP-10 focus on capacity markets. For most scenarios examined, the
11 proposed USGenNE/NEP and USGenNE/TCPL transactions actually reduce market
12 concentration. In the few cases where the HHI change is positive, it is immaterial (8 to 17
13 points). Tables JDP-11 and JDP-12 examine energy markets. Again, in most cases examined,
14 the result of the two transactions is to reduce concentration in the marketplace. In the
15 sporadic cases where the HHI increase is more than 50 points, the post-transaction HHIs are
16 all under 1,000, which is well below the level giving rise to potential competitive concerns in
17 merger evaluations. The recently announced BECo generation asset divestiture would
18 materially reduce all the pre- and post-transaction HHIs shown in these tables.

19 **IV. Errors In Mr. Levitan's Market Share and Concentration Calculations**

20
21 Q. You stated in the summary provided above that Mr. Levitan's calculations contain a number
22 of errors significant enough to undermine his conclusions. Would you please explain the first
23 error and show how it affects Mr. Levitan's calculations?

24
25 A. Yes. While Mr. Levitan recognizes that USGenNE is planning to sell off a portion of its
26 interest in the Ocean State Power projects (Levitan testimony, page 30), he does not take this
27 into account in developing his market share and HHI calculations. The significance of this

1 error is easily seen. According to Mr. Levitan, in the pre-transaction world USGenNE
2 affiliates control 279 MW of generation capacity in New England. If USGenNE acquires the
3 NEES assets and sells off 230 MW to TCPL, at most (given Mr. Levitan's figures) it will
4 control only 49 MW more in the post-transaction world than NEP did in the pre-transaction
5 world. This is equal to only two-tenths of one percent of the capacity in New England and
6 obviously cannot materially affect concentration in NEPOOL electricity markets. In fact, the
7 calculated HHI increase, using Mr. Levitan's numbers adjusted only to recognize the
8 USGenNE/TCPL transaction, is only 8 points. Mr. Levitan's calculations are replicated and
9 the revisions to his numbers are shown in Exhibit ____ (JDP-2).

10
11 Q. What is the second error in Mr. Levitan's calculations?

12
13 A. He fails to recognize that all but 7 MW of summer capacity and 2 MW of winter capacity in
14 NEPOOL in which USGenNE affiliates have ownership interests is committed to buyers
15 pursuant to very long term contracts. Indeed, the earliest NEPOOL capacity contract expires
16 in 2008. Accordingly, control of this capacity and the associated energy is in the hands of
17 buyers, rather than USGenNE affiliates.

18
19 Q. What is the effect of this on the HHI calculations?

20
21 A. It is apparent that combining NEP's non-nuclear generation assets with the 7 MW of
22 uncommitted capacity in NEPOOL controlled by USGenNE affiliates in the pre-transaction
23 case will have no discernible effect on market concentration. In fact, recognizing the trivial
24 amount of generation capacity controlled by USGenNE affiliates in the pre-transaction world,
25 the calculated change in HHI attributable to the USGenNE/NEP transaction is 1 point. In this
26 calculation I have added 100 MW to NEP's capacity, which adds back the Ocean State Power
27 capacity NEP has under contract which Mr. Levitan subtracted in his analysis.

1 Q. Was Mr. Levitan consistent in how he treated generation capacity committed to buyers under
2 long-term contracts?

3
4 A. No. As just noted, in developing pre- and post-transaction market shares for USGenNE
5 affiliates, he assigned capacity to USGenNE even though it has been sold under long-term
6 contracts. However, the capacity figures he uses for NEP and the other three investor-owned
7 utilities included in his calculations attribute purchased capacity to the buyer, not the seller.
8 Had he been consistent (assigning capacity sold under long-term contract to the seller), that
9 would have reduced both the change in HHI calculated by Mr. Levitan and the level of the
10 post-transaction HHI. As indicated above, the proper approach is to assign capacity sold
11 under long-term contracts to the buyers who effectively control the output. Q.
12 What is the third error in Mr. Levitan's market share and HHI calculations?

13
14 Q. What is the cumulative effect of correcting these three errors?

15
16 A. If we simultaneously correct the errors in Mr. Levitan's analysis identified thus far, we see
17 that the following is the situation produced by the proposed USGenNE/NEP and
18 USGenNE/TCPL transactions: the generation capacity controlled by USGenNE affiliates in
19 the pre-transaction world is only 7 MW which will be consolidated with all but 77 MW of
20 NEP's generation capacity (which NEP is retaining), then 230 MW of control over the Ocean
21 State project capacity will be sold to TCPL. It is self-evident that splitting off two pieces of
22 NEP's capacity totaling 307 MW and then adding that to 7 MW of USGenNE affiliate
23 controlled capacity must result in a reduction in concentration of generation capacity in New
24 England. Making just these changes to Mr. Levitan's calculations reveals that the HHI will
25 be reduced by 49 points upon consummation of the USGenNE/NEP and USGenNE/TCPL
26 transactions.

27
28 Q. How does Mr. Levitan treat NEP's nuclear capacity in his calculations?

1 A. He assigns that capacity to USGenNE in the post-transaction case, effectively treating the
2 nuclear resources as having been bought by USGenNE as part of the deal.

3
4 Q. What is the actual situation?

5
6 A. As part of the USGenNE/NEP transaction, under certain circumstances, USGenNE has the
7 right to purchase up to 98 percent of NEP's nuclear output at a price not exceeding the
8 wholesale standard offer price. Given this, the most conservative thing to do would be to
9 assign 98 percent of the nuclear capacity in the post-transaction calculations to USGenNE
10 and 2 percent (about 7 MW) to NEP. However, it is important to bear in mind that this is a
11 very conservative approach for several reasons. First, USGenNE cannot withhold the output
12 of NEP's nuclear capacity from the market because NEP is free to sell any output not taken
13 by USGenNE. Second, USGenNE's option to purchase 98 percent of NEP's output lasts
14 only as long as USGenNE is supplying wholesale standard offer power to NEP. Furthermore,
15 USGenNE has to pay then-current NEPOOL market prices for any nuclear output taken from
16 NEP unless the wholesale standard offer price is lower. Finally, NEP is free at any time to
17 retire its nuclear capacity or sell it (permanently not temporarily) to another party and that will
18 extinguish USGenNE's option to purchase the nuclear output.

19
20 Q. What would be the effect on Mr. Levitan's calculations of recognizing that NEP's nuclear
21 output will be controlled by USGenNE only under limited circumstances in the post-
22 transaction world?

23
24 A. If the nuclear capacity were treated as remaining under NEP's control in the post-transaction
25 world, the calculated change in HHI resulting from the USGenNE/NEP and USGenNE/TCPL
26 transactions would be minus 12 points taking all of Mr. Levitan's other calculations as given,
27 and minus 90 points correcting as well the other three errors identified above.

1 Q. Are there other problems with Mr. Levitan's calculations?

2
3 A. Yes, there are two additional largely offsetting problems. These do not alter the calculated
4 changes in HHIs but they have a small effect on the levels of the calculated pre- and post-
5 transaction HHIs. First, Mr. Levitan has truncated the HHI calculations by basing them only
6 on the market shares of the four largest sellers in NEPOOL. This results in understating the
7 HHIs by roughly 95 points. Mr. Levitan's analysis fails to take note of other planned
8 generation asset sales by utilities in New England which are likely to reduce market
9 concentration further. Second, recognizing the recently-announced sale of approximately
10 2,000 MW of Boston Edison Company ("BEC") capacity to Sthe Energy Company
11 ("Sthe") would reduce Mr. Levitan's calculated pre- and post-transaction HHIs by almost
12 80 points.

13
14 Q. The final point you identified in your summary assessment of Mr. Levitan's market share and
15 HHI calculations relates to the treatment of USGenNE capacity dedicated to providing
16 wholesale standard offer service. Please elaborate on this criticism.

17
18 A. To go back to fundamentals, the definition of market power (which is the focus of concern
19 in any competitive analysis) is the ability and incentive of sellers to raise market prices above
20 competitive levels by a significant amount for a significant period of time. In an unregulated
21 market, absent contractual restrictions to the contrary, there are two ways this can be done.
22 The first is for the seller to raise its own prices and if customers do not have good
23 alternatives, they will be forced to buy at the higher prices. The second is for the seller to
24 withhold a portion of its capacity and force the market to call on other higher priced resources
25 to meet demand which will drive up market clearing prices. Clearly, to the extent that a seller
26 is obliged by contract to dedicate its generation resources to serving a particular load at pre-
27 established prices, it cannot possibly use those resources to exercise market power.

1 Elsewhere in his testimony, Mr. Levitan argues repeatedly that at least in the early years, the
2 retail and wholesale standard offer prices are so low that most retail customers will select
3 standard offer service and that USGenNE will be the wholesale supplier of that service. (See
4 Levitan testimony pages 29 and 33-34). If that turns out to be the case, then it follows that
5 most of the capacity USGenNE is acquiring from NEP will be tied up in providing wholesale
6 standard offer service at pre-established prices. This capacity cannot be withheld from the
7 market nor will USGenNE profit on standard offer sales if the market price of power in New
8 England rises above the standard offer levels. Therefore, capacity needed to provide standard
9 offer service cannot possibly be used to exercise market power.

10
11 Q. Does that complete your testimony at this time?

12
13 A. Yes.
14